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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,322

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Takashi Inoue

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EXAMINER

O HERN, BRENT T

ART UNIT

PAPER NUMBER

1794

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



<b>Office Action Summary</b>	<b>Application No.</b> 10/573,322	<b>Applicant(s)</b> INOUE ET AL.	
	<b>Examiner</b> Brent T. O'Hern	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,7-18,21-29 and 31-35 is/are pending in the application.
- 4a) Of the above claim(s) 24-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,7-18,21-23 and 31-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |



## **DETAILED ACTION**

### ***Claims***

1. Claims 1, 7-18, 21-29 and 31-35 are pending with claims 24-29 withdrawn.

### **WITHDRAWN REJECTIONS**

2. All rejections of record in the Office action mailed 6/16/2009 have been withdrawn due to Applicant's amendments in the Paper filed 9/16/2009.

### **NEW REJECTIONS**

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

4. Claims 1, 7-12, 17-18, 21-22 and 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1057840 in view of Okada et al. (JP 2003144050).

GB 1057840 teaches a method of extracting volatile components by which volatile components are obtained by steam extraction within a sealed container (*See page 2, Example, with a sealed extraction process.*) and roasting of tasty materials/ (roasted coffee beans), the method comprising directing steam into contact with the tasty material; and cooling, freeze-drying and recovering the steam after said directing steam into contact, wherein the steam extraction is carried out using steam at normal pressure (*See page 2, Example, and pp. 1-2 where the process takes place at normal, atmospheric, pressure.*), however, fails to expressly disclose using super heated steam for extraction/roasting is set to a temperature higher than 140 °C but no higher than 500 °C per claims 1 and 11, wherein a steam flow rate of 0.3 to 30 kg/hr is used per 1 kg of tasty



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material per claim 1 or 1 to 30 kg/hr per kg of raw coffee beans per claim 12, wherein said directing step is carried out for 5 to 60 minutes per claim 1, and wherein a recovery rate of the volatile components by the steam extraction is 0.01 to 10% by weight as a solid with respect to the tasty material per claim 1, and the coffee beans being at least one type selected from the group consisting of *Coffea arabica*, *C. canephora* var. *robusta*, *C. canephora* vat. *conulon* and *C. liberica*.

However, Okada ('050) teaches using superheated steam to process/roast coffee at a temperature from 200 °C to 400 °C for 5 to 15 minutes (*See Abstract and paras. 10-16 and 27.*) for the purpose of removing aromatic scents from arabika coffee (*See paras. 14 and 32.*).

Regarding the temperature, rate and amount of steam addition, it would have been obvious to one having ordinary skill in the to adjust the temperature, amount of super heated steam for the intended application since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding the recovery rate, GB 1057840 teaches that 100 to 175 ccs of condensate is obtained per kg of coffee steamed and the steam distillate and the extract having a 10-30 % dry content (*See p. 2.*), thus, it would have been obvious that this amount equates to the amount claimed. Furthermore, the amount recovered is a function of time processed, thus, the amount can be more or less based on user preference and manufacturing requirements.



Therefore, it would have been obvious to a person having ordinary skill in the art that the recovery as taught by GB 1057840 would be the amount as claimed.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to use steam at the above temperature and time as taught by Okada ('050) and the above proportional amount in GB 1057840 in order to recover/remove the above aromatic materials.

**5.** Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1057840 in view of Okada et al. (JP 2003-144050) and Takano et al. (US 5,417,993).

GB 1057840 and Okada ('050) teach the method discussed above, however, fail to expressly disclose wherein the coffee beans are obtained by roasting raw coffee beans using at least one type of method selected from the group consisting of far infrared roasting, hot air roasting, direct flame roasting and charcoal roasting and wherein the L value of the roasted coffee beans is 15 to 33.

Takano ('993) teaches roasting coffee beans either using an electric sample roaster or by using gas-grill type until the desired L-value is achieved (*See col. 5, l. 25.*) with the L-value being within the range of 15 to 30 (*See col. 5, l. 31.*) for the purpose for the purpose of providing a coffee with improved and enriched aroma (*See Abstract.*). Furthermore, the above roasting methods are interpreted as substitutes and all capable of producing the same products.

Therefore, it would have been obvious to use to the above roasting method to provide coffee beans with the above L-value as taught by Takano ('993) in GB 1057840 in order to provide a coffee with improved and enriched aroma.



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6. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1057840 in view of Okada et al. (JP 2003144050) and Kazuyuki et al. (JP 2003-033137).

GB 1057840 and Okada ('050) teach the method discussed above, however, fail to expressly disclose wherein the tasty material includes of tea leaves following tea manufacturing wherein the tea leaves are at least one type selected from the group consisting of green tea, oolong tea, black tea, barley tea, adlay tea, jasmine tea, Pu-Erh tea, rooibos tea and herb tea.

However, Kazuyuki ('137) teaches extracting volatile components by steam distillation and obtaining components after steaming (*See Abstract and paras. 30, 35 and 37.*), with the volatile components extracted being from tea, green tea, or oolong tea and arabica coffee (*See Abstract and paras. 30 and 37.*), with the L value of the roasted coffee beans being 15 to 33 (*See paras 30-31 and 35.*) for the purpose of providing a tea drink with a good tea balance (*See para. 6.*).

Therefore, it would have been obvious to extract volatile components from the above teas as taught by Kazuyuki ('137) with GB 1057840's modified process in order to provide a tea drink with a good tea balance.

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1057840 in view of Okada et al. (JP 2003-144050) and Kino et al. (US 6,231,907).

GB 1057840 and Okada ('050) teach the method discussed above, however, fail to expressly disclose steam uses contains deoxygenated water.

Kino ('907) teaches using deoxygenated water coffee processing (*See col. 5, ll. 5-33.*) for the purpose of providing high quality coffee (*See col. 5, ll. 34-45.*) Furthermore, it



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is known in the art that prior to generating steam, the air, which includes oxygen is typically removed from the water for the purpose of minimizing the corrosive action and mechanical stress that non-condensable air can have on boiler/steam equipment.

Furthermore, it was known that the non-condensable oxygen in the steam leads to lower condensation/distillation efficiency since it presents a barrier to condensation and does not provide the vacuum as is the case with condensable steam and aromas.

Therefore, it would have been obvious to a person having ordinary skill in the art to use deoxygenated water as taught by Kino ('907) and known in the art in GB 1057840 in order to provide a high quality coffee by an effective and efficient process without prematurely degrading the processing equipment.

### **ANSWERS TO APPLICANT'S ARGUMENTS**

**8.** In response to Applicant's arguments (*See pp. 8-11 of Applicant's Paper filed 4/28/2009.*) regarding Mahlmann et al. (US 3,421,901), it is noted that said reference is no longer cited, thus, all arguments regarding such are moot.

**9.** In response to Applicant's arguments (*See pp. 8-11 of Applicant's Paper filed 4/28/2009.*) regarding Okada et al. (JP 2003-144050), it is noted that in the current Office action that said reference is only cited for disclosing typical roasting temperatures for coffee and effective temperatures for removing aromatic materials. Newly cited GB 1057840 teaches the basic claimed process.

**10.** In response to Applicant's arguments (*See p. 11 of Applicant's Paper filed 4/28/2009.*) regarding Takano ('993), Kazuyuki ('137) and Kino ('907), it is noted that no further precise arguments are set forth than discussed above.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brent T. O'Hern/  
Examiner, Art Unit 1794  
November 28, 2009